

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Assistant Secretary for Housing-Federal Housing Commissioner

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

Series and Series Number:

MATERIALS RELEASE NO. 1282

ISSUE DATE: September 17, 1997

REVIEW DATE: September 17, 2000

SUBJECT: 1. Product Sto One-Coat Glass Fiber Reinforced
 Stucco System

2. Name and Address
 of Manufacturer

Sto Corporation
P.O. Box 44609
Atlanta, GA 30336-5609

Data on the nonstandard product, described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Exterior Wall Finish and Insulation System

DESCRIPTION:

The Sto One-Coat Stucco System is a 3/8" thick exterior wall finish and insulation system, consisting of a mill-mixed stucco which contains chopped fiberglass packaged in 80 lb. water-resistant bags. The stucco is reinforced with wire mesh, and is applied over one of the following: gypsum or fiberboard sheathing; polystyrene, polyisocyanurate, or polyurethane insulation board. The wire mesh reinforcing is mechanically fastened to the structural wall.

GENERAL CONDITIONS:

Field quality control shall be the responsibility of the contractor installing the stucco materials and shall be verified with training and field inspections performed by Sto Corporation's technical representative at the beginning of each project. Other inspections shall be conducted as required. The Sto Corporation's technical representative shall verify the soundness of the substrate for acceptance of the Sto One-Coat Stucco System prior to application.

MATERIALS:

Sto One-Coat Stucco

Sto One-Coat Stucco shall be a proportioned mixture of Portland cement, hydrated lime, 1/2" chopped E-glass fibers and calcium stearate, factory blended and supplied in 80 lb. bags. Flexural strength of the Sto One-Coat Stucco for any three consecutive ASTM C 348 tests shall be equal to or greater than 600 psi at 7 days and 800 psi at 28 days. The average compressive strength for any three consecutive ASTM C 109 tests shall be equal to or greater than 2000 psi at 7 days and 3000 psi at 28 days. No strength test shall fall more than 10 percent below the specified average strength.

Sand

Sand samples shall be approved by Sto Corporation and shall comply with ASTM C 35 with gradation as specified by Sto Corporation, and shall be free of salts, organic matter and other deleterious material.

Gypsum Board

Gypsum sheathing shall be a minimum of 1/2" thick and shall be in compliance with ASTM C 79, "Standard Specification for Gypsum Sheathing Board." It shall be core-treated, water-resistant gypsum as specified in Section 3.2 of ASTM C 79.

Fiberboard

Fiberboard sheathing shall be 1/2" thick, construction grade, and shall be in compliance with ASTM C 208, "Standard Specification for Cellulosic Fiber Insulating Board."

Polystyrene Board

Polystyrene insulation board shall be a minimum 1", and maximum 4" thick board in compliance with the Use of Materials Bulletin (UM) 71.

Polyurethane and Polyisocyanurate Board

Polyurethane and polyisocyanurate insulation boards shall be a minimum 1", maximum 4" thick board manufactured to meet the minimum density 1.0 pcf.

Reinforcing

Wire mesh (stucco netting) shall comply with Federal Specification QQ-L-101a, except that 1" x 20 ga. wire is acceptable.

Mechanical Fasteners

Fasteners shall be in compliance with Sections 4.2, 4.3 and 4.4 of ASTM C 846.

LIMITATIONS:

The Sto Corporation system shall not be applied over open studs. No additives shall be added to the mill-mix in the field. Once mixed, the stucco shall not be retempered.

INSTALLATION:

Installation shall be in compliance with Sto Corporation specifications, and the requirements of this Materials Release (MR).

1. Prior to installation of polystyrene, polyurethane or polyisocyanurate boards, the entire building shall be checked for solid nailing of studs, appropriate blocking, and structural bracing.
2. When the stucco is applied over substrates other than polystyrene, polyurethane or polyisocyanurate boards, a non-bituminous vapor retarder having a perm rating not exceeding 0.50, shall be installed between the stucco netting and the substrate.
3. Stucco netting shall be applied tightly over the stucco backing board and stapled or nailed through the board at 6" intervals so as to penetrate the studs no less than 3/4". Backing board shall not be used as a nail base.

A lath inspection is required after the stucco netting and all trim is in place and prior to the application of the stucco.

4. The mill-mix shall be delivered to the job site in sealed bags printed with the manufacturer's name and address, batching plant code, application instructions, and the MR number on the label.

Sto One-Coat Stucco System shall be mixed in a clean mixer, following the manufacturer's printed instructions on each sealed bag of Sto Corporation specialty components. Sand and water are added, according to the manufacturer's instructions at the job site.

5. Application of Sto One-Coat Stucco System shall only be applied when the ambient and surface temperature are between 35° and 90° F.

Sto One-Coat Stucco System shall be misted with water at least once each day for a period of three days after application and more often during windy, dry weather. (See ASTM C 926, Appendix X1.4).

The Sto One-Coat Stucco System shall be protected with a moisture-proof cover if rain, snow or sleet is expected within eight (8) hours after application.

7. Flashing shall be provided only from corrosion-resistant materials, at all openings and perimeters to prevent water from getting behind the plaster. Detailed requirements for the application of flashing and weeping provisions shall be covered in the contract specifications.
8. Control joints must be provided over windows, doors and other penetrations as specified by the design professional. Expansion joints are required in supporting construction at each story level horizontally and vertically to enclose a 144 sq. ft. maximum area, at changes in building height, substrate, and areas of anticipated building movement. Different spacing may be required for the specific job conditions as determined by the design professional.
9. Venting shall be provided and a vapor retarder in compliance with the HUD Minimum Property Standards.
10. Provisions for drainage behind the exterior stucco in compliance with Section A2.2, of the Appendix to ASTM C 926, "Application of Portland Cement-Based Plaster."

CERTIFICATION:

Sto One-Coat Stucco System shall be installed by a company whose applicators have attended training by Sto Corporation. Sto Corporation shall furnish the company with a certificate stating that the company is trained to perform the work of applying the Sto One-Coat Stucco System. Sto Corporation shall provide the local HUD Office, the owner, and the builder, with a list of applicators who have attended training on request. Each installation shall have a card left at the property for the owner and a copy to the HUD Field Office showing the name and address of the applicator and a copy of the twenty-year warranty.

MANUFACTURER'S WARRANTY:

Sto Corporation warrants Sto One-Coat Stucco System for twenty years from the date of initial application to be free from any defects which adversely affect the weather-resistance of the system. Should any such defects occur, Sto Corporation shall make a pro rata allowance for replacement, or pay the owner the amount of the allowance.

Sto Corporation shall not be liable for damages or defects resulting from misuse, natural catastrophes, lack of or improper maintenance, structural movement, improper design or application, casualty or other causes beyond the control of Sto Corporation. This warranty does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provision applicable to any other housing program.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this MR commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.

3. When requested, provide the Office of Consumer and Regulatory Affairs, Manufactured Housing and Standards Division, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision and an appropriate user fee shall be sent to HUD Headquarters.

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer that the MR may be canceled when:

- (1) conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
- (2) the manufacturer has changed its organizational form without notifying HUD, or
- (3) the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice, of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be cancelled. No refund of fees will be made on a cancelled document.

This Materials Release is issued solely for the captioned firm and is not transferable to any person or successor entity.
